



# **WORK TRUCK SUPPLY CHAIN 101**

**UNIQUE CHALLENGES, BUSINESS MODELS AND SOLUTIONS**

[WWW.WORKTRUCKSOLUTIONS.COM](http://WWW.WORKTRUCKSOLUTIONS.COM)



# WORK TRUCK SUPPLY CHAIN 101

## UNIQUE CHALLENGES, BUSINESS MODELS AND SOLUTIONS

With so many vocational work applications resulting in such a wide range of body and equipment variations, the process of creating a work truck is very complicated. Work trucks are basically custom-ordered rather than mass-produced, and the multi-stage process involves several distinct yet interrelated industry segments to finalize the vehicle.

### STARTING THE PROCESS

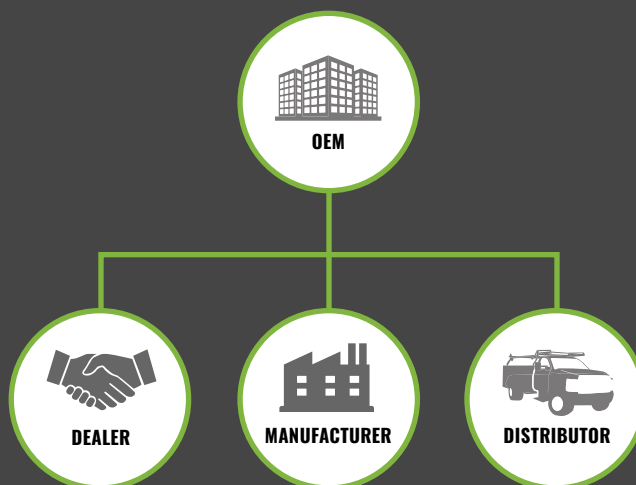
First in the process are the truck chassis and van manufacturers, otherwise known as Original Equipment Manufacturers (OEMs), such as Ford, GM, Stellantis, etc. OEMs build an incomplete vehicle, which is reflected in the VIN assigned. The other half of the vehicle, the functional half—which is the truck body or van upfit equipment that makes it purpose-built for specific vocations (think of the back end of a landscape truck where trees and tools are carried, or the “dump bed” portion of a dump truck for example)—is made by a separate manufacturer. But how does the final vehicle end up being upfitted?

To start off, the OEMs provide body and upfit manufacturers with specific “fitment” criteria so that the final complete vehicle meets both safety and function requirements. To make sure that their criteria are being followed, the OEMs certify upfit manufacturers. For example, being certified by Ford makes a manufacturer a Qualified Vehicle Modifier, whereas GM’s program creates Specialty Vehicle Manufacturers. These programs put technology and processes in place to consistently produce to the fitment criteria, which keeps the OEMs’ chassis and van warranty valid, and then the OEMs maintain that quality control of their certification programs and renewals.

### WHERE IT GOES FROM HERE

When it rolls off the assembly line, an unfinished vehicle is sent to one of many locations. Such locations include:

- ▶ An automotive dealer who ordered the vehicle to keep on hand where it waits for a buyer to come in and order a specific work truck upfit solution.
- ▶ A body or equipment manufacturer to hold onto until they are ready to upfit it for a dealer or a dealer’s customer (held in what is most often called a pool).
- ▶ Or to the third player in the supply chain not yet mentioned, the truck body and equipment distributor.



Distributors work with body and equipment manufacturers to help them cover a larger market area and are often experts on the type of upfits needed for specific geographic and vocational needs. They also provide their areas of expertise for their local dealers.

Distributors can work with a dealer's in-stock, unfinished chassis or van, they can work with a body or equipment manufacturer's unfinished chassis or van, and some of the larger distributors are also eligible to carry unfinished chassis and vans directly from an OEM in their own pool. When a distributor is involved, they are typically the final upfitter for the end-user. They often add in additional accessories from manufacturers of products such as power technology, lifts, ladders, racks, lights, and more.

So, a final, completed work truck can happen in many ways, in many different geographies and be many different sizes. This is why a finished vehicle can take months to be delivered.

## PRODUCTION EVOLUTION

Body and equipment manufacturers continue to evolve their production techniques with new technologies to make products more efficient and cost effective. Their product development focus is most often on goals such as increased fuel efficiencies from reduced weight, lower maintenance, longer life, and other key "in-the-field" functional benefits. However, focusing on how to move through the process more efficiently, using cloud technology to track and locate vehicles through the entire process, is also a key area.

## MORE EFFICIENT BUILDS

The National Truck Equipment Association (NTEA) holds its annual Executive Leadership conference in October to provide their members insights into the economic, regulatory, and business trends affecting the work truck industry companies who build the work trucks. One of the trends that it has been focused on recently is the need for the work truck industry to further move into the new technology era.

Today, NTEA represents more than 2,000 companies that manufacture, distribute, install, sell and repair commercial vehicles, serving the needs of large fleets and smaller businesses across a broad spectrum of commercial vehicle applications and needs. The industry produces more than 8 million vehicles a year in the U.S., generating in excess of \$581 billion. What is especially important is that the industries depending on the work truck industry are the backbone of the US economy, powering over 80% of our GDP.

Organizations like Amazon continue to look at ways to shorten the supply chain and improve efficiencies; this is something those in the work truck space should mimic. NTEA members have been encouraged to follow this lead and seek out ways to remove the drag on moving commercial vehicle inventory to the end users.

Understanding fundamental demand is the first step. Because of the fragmentation of the participants in the work truck supply chain and the lack of technology integration between them, all of the stakeholders in this industry have a very limited view into the needs of the final customer. Today, there is no consolidated knowledge of the final configurations and how they are being used to shine a light on fundamental demand and thus guide decision-making.

**THE INDUSTRY PRODUCES MORE THAN 8  
MILLION VEHICLES A YEAR IN THE U.S.,  
GENERATING IN EXCESS OF  
\$581 BILLION  
AND POWERING OVER  
80% OF OUR GDP**



## VISIBILITY IS THE GOAL

So far, we've looked at the functional levels that make up the work truck industry supply chain; OEMs, body manufacturers, distributors, and dealers. We also described what role these major stakeholders have in creating a work truck or van, and provided a broad overview of the process to upfit a vehicle. As a result, it should be clear why the fragmentation in the industry makes it difficult to track final configurations, and why there is no consolidated knowledge of the final configurations of work trucks and vans. With no way to tie what product choices were made by which customers, this means data is not available to guide decision-making at each stakeholder level.

So, how does this lack of data in the work truck industry affect the efficient delivering of work trucks and vans to the end user? It means end users can't have the specific use case trucks they need when they need them.

## DATA AND MARKETING

No matter the industry, successful business people naturally and consistently do what marketers call "environmental scanning," i.e., keeping a watch on everything over which they have no control.

This means they are always watching five key factors:

- ▶ What is happening with the economy
- ▶ What is happening with regulations
- ▶ Societal changes that might be affecting their business (demographics, culture, styles, etc.)
- ▶ How technology is likely to change their world
- ▶ What their competitors doing

Having data on these five factors is key to supporting the decisions they make, and applying those decisions to the four basic things that they do have control over:

- ▶ What their product/service is
- ▶ How they price it
- ▶ How they get their product/service to the right customer/place
- ▶ How they make sure their customers know about their product/service (promotion)

## PIECING THE INFO TOGETHER

"Chassis and body manufacturers work hard to discover improvements that will help the buyer be more productive and more efficient. The information about all those unique features comes from multiple sources making it a challenge to display it to end users in a single comprehensive fashion. Buyers need access to vehicle and upfit particulars to make informed decisions when investing in a new vehicle."

### OEMS

- ▶ OEM chassis and van information is focused on what retail buyers want
- ▶ Commercial features are typically hidden deep on an OEM's commercial national site
- ▶ OEMs have commercial programs that help educate dealers about chassis and vans, but not bodies or upfits

### DEALERSHIPS

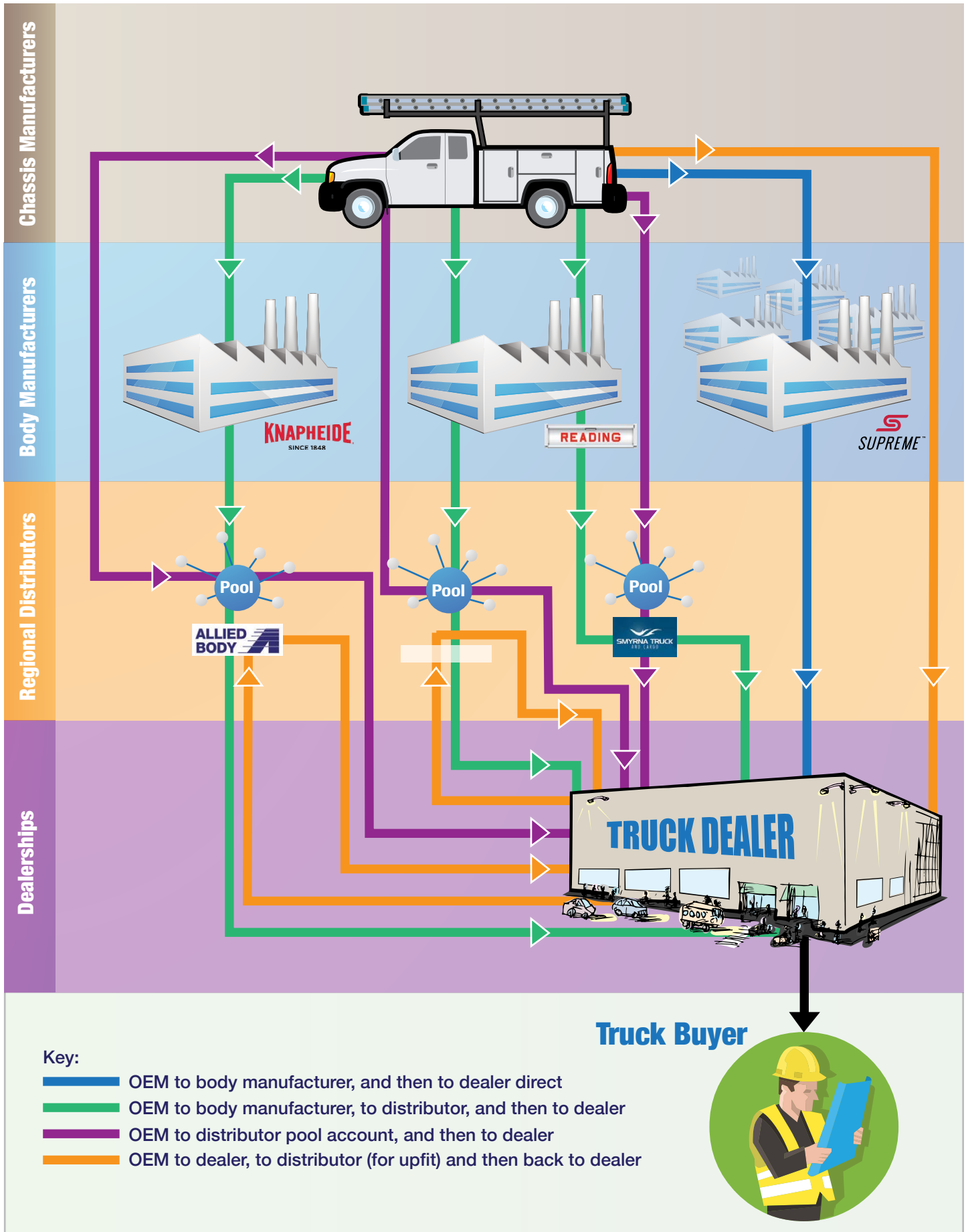
- ▶ Most dealers only have the ability through their OEM approved website to focus on showing info only on retail cars and trucks
- ▶ They might have a display rack of brochures about bodies, but printed material is often out-of-date
- ▶ Smart dealers have dedicated commercial salespeople who are knowledgeable in commercial vehicles

### DISTRIBUTORS

- ▶ VERY well informed about products they sell
- ▶ Call on dealers to educate them on bodies and accessories with brochures and manufacturers' websites
- ▶ Are challenged to keep dealers' product information up-to-date

### BODY MANUFACTURERS

- ▶ Body and van manufacturers improve productivity and efficiency; difficult to get that information to the buyer directly
- ▶ Some manufacturers sell through distributors, some sell direct to dealers



## BACK TO THE QUESTION

So, how does this lack of data in the work truck industry affect prospective business customers?

Because the supply chain stakeholders do not have the data on what final configurations are being used by which vocations and in which markets, they end up having to do a lot of guessing about demand. This guessing is what creates the problems that affect businesses directly.

From a purely practical standpoint, it means that it takes a long time to get a work truck built, because the right truck/van and the right upfit are not likely to be in the right place, and certainly not at the right time. And, that is all happening in the dark, i.e., not even the individual stakeholders today know much about their product once it leaves their factory.

Here are just a few mini views into two of their issues, which then in turn drive other problems:

The distributor of, say, a service body, will sell that upfitted vehicle to a dealer. If that vehicle was not ordered for a specific customer it will sit on the dealer's lot until a customer (contractor, electrician, or other such vocation, typically) finds it and buys it. In the meantime, for that distributor to see what is still in stock at that dealer, they have to physically send someone in a car with a clipboard to the dealer's lot to visually check on a list of what they still have in stock, just hoping that the inventory is still on the main lot, not moved to the annex two blocks away.

Yet, today that is the only way a distributor knows what has been sold without participating in the only available technology platform. That leaves them guessing how fast it sold, and hopefully be ready to restock that dealer's inventory, or not.

The dealers are understandably cautious about having a pre-built vehicle on their lot, since these vehicles are often very expensive and, as described above, the dealer has very little data on which businesses might be looking for which configurations at that specific time. Plus, there are many commercial promotional tools that exist for dealers to help customers find their inventory.

Those are just two examples of how the lack of data affects the stakeholders in the chain. Since this lack of data exists for all of the stakeholders, you can imagine the challenges that OEMs face in being able to correctly plan their production for demand.

A large body manufacturer reported that they internally track 15,000 body configurations—many small custom modifications—though they felt it should certainly be under 1,500. This is evidence of an industry that has focused on customization, but not on best practices for specific end-user cases.

Chassis and body manufacturers continue to work hard to discover improvements that will help the end-user be more productive and more efficient. At the end of the day, getting that information about those unique and valuable improvements and features to the end-user is difficult, and prevents buyers from making the best decision when investing in a new vehicle.

## CONNECTING THE DOTS

There are hundreds, if not thousands, of companies that manufacture, distribute, install, sell, and repair commercial trucks, truck bodies, truck equipment, trailers, and accessories. With so many companies involved in finishing work trucks, there are only a couple ways that the existing industry fragmentation causing delays in the supply chain can be improved upon; first by reducing the number of players in the industry, and second by improving the technology in the industry.

Let's focus now on the organic changes that are taking place in the industry as it is dragged, kicking and screaming, into the 21st century.

## PARTNERSHIPS

The work truck industry is characterized by rapid change and a stringent labor market. This has fostered an environment conducive to acquisitions and in some cases partnerships. Such examples encompass geographic extension acquisitions, wherein the purchaser makes identical products as the acquired firm in a separate geographic market, and product extension acquisitions, wherein a company acquires a firm that makes a different product needing similar manufacturing or marketing techniques.

A headline grabbing example would be industry giant Tesla pioneering a new partnership model by collaborating with Original Equipment Manufacturers (OEMs) to [standardize electric vehicle \(EV\) plugs](#). This strategic alliance aims to resolve the fragmentation prevalent in EV charging infrastructures, a primary restraint that undermines the widespread adoption of EVs. By creating a unified standard, Tesla and its OEM partners seek to streamline recharging accessibility and convenience for EV users, akin to the uniformity of traditional fuel pumps.

## NEGOTIATING EFFICIENCY

Due to the nature of the commercial vehicle industry, partnerships and mergers remain common. This trend ultimately could help make the process of building work trucks and vans more efficient, but this is a slow process. Additionally, the size of the industry itself can make it difficult to keep up with all of the changes.

Even after an acquired company is integrated into the parent, or the partnership is inked, the resulting new firm

or operation must still address old methodologies and lack of technology. That really is the key issue for the entire work truck industry.

Earlier, we mentioned that one manufacturer has more than 15,000 configurations on the books. Not only is it critical for the company to consolidate (its goal is 1,500) for purposes of efficient and cost-effective manufacturing, but also to be able to communicate to the buyer the configuration (model) and the specific benefits for their job. Best practices/uses must become a focus to drive efficiencies for the buyer as well. Using the 80/20 rule is just the start; identifying the best configurations by vocation—that is the Holy Grail.

## LIMITED TECHNOLOGY

After visiting numerous manufacturing and distributing operations, one common issue appears over and over: The work truck industry is very slow at embracing technology. Internally, there is none of the industry standardization that is typically needed to build functional databases.

Let's look at an example: The internal name for an eight-foot service body consists of a number and letter combination; the name of the same body, but in a nine-foot length, is not sequential because the nine-foot body was added to the product line ten years later. Also, there is no standard code for adding a third or fourth drawer; instead it is written in a notes section of the order form. Because the internal names look completely different, employees must memorize the names to differentiate them and order them properly, as long as they can understand exactly what the customer wants. However, the marketing brochure calls the service body a name that represents strength and durability, but does not tie back in any way to the internal alphanumeric labels. How does a company start to standardize a system built over decades, with no true schema designed to be used for tracking in a database? Plus, fix all this while running a business.

This is why even the largest manufacturers have limited adoption of technology outside of their manufacturing processes. There are no real "niche" ERPs for this industry. The OEM pools, the manufacturers, and their distributors are not connected digitally in any bi-directional fashion, so there ends up being a lot of paper on clipboards and many spreadsheets by email.

## INVENTORY MONITORING

Imagine a world where checking on-hand stock consists of needing to:

- ▶ Find the email with the last Excel list of vehicles (possibly weeks old), scroll through looking for the right section, distributor, location, and VIN
- ▶ Walk out to the yard and physically count trucks, vans, and bodies
- ▶ Get in the car and drive to the dealership that purchased their dump body, service body, contractor's body, etc. with a clipboard and manually check on the list if they are still on the lot.

Sound tough? It is.

Now you have the entire picture of the supply chain; how work trucks are built and by whom, how they are delivered, and what adds delay and confusion.

## THE CURRENT TREND

As a result of the technological void within the industry, commercial truck buyers end up settling for the wrong truck due to both time constraints and the lack of choice. Not just the time it takes for the “right” truck to be found and delivered, or ordered, but also the time they cannot afford to wait while their old truck is out of commission or a new job starts. They are forced into a decision to buy the “wrong” truck out of necessity. On average a business loses between \$2,000 - \$3,000 per day when a truck is down, or they need a new one to expand due to demand. Current market opacity, dealer culture, along with normal consumer behavior (i.e., smaller companies not being able to plan further ahead) fuels this broken process.

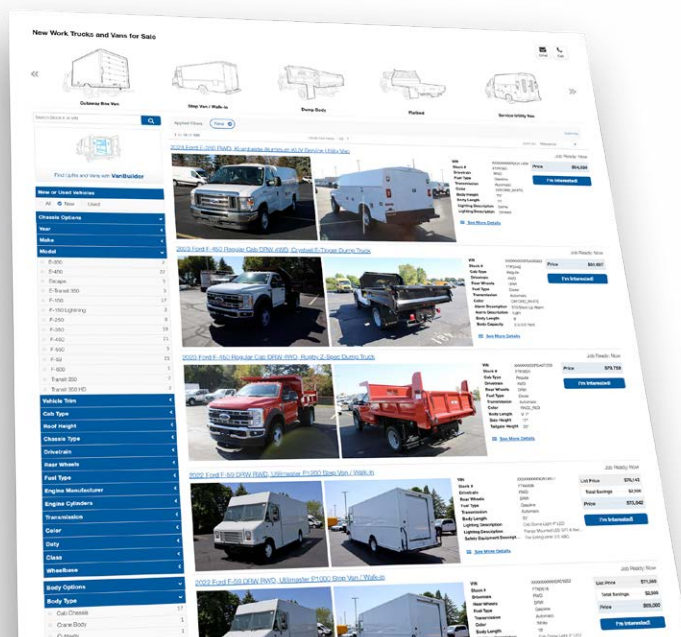
## WHAT'S TO BE DONE

Solving the problem of wrong work trucks being purchased requires strategic linking of information currently fragmented across the supply chain. In addition to providing information for the truck buyer, the solution must improve the knowledge base for the dealer sales channel personnel, supporting the "hand-off" of the buyer to the seasoned work truck sales professional (truck pro) in the dealership. It should also keep the truck professional up to date with vocational product information.

The solution should be in the Cloud, and should be a single source or service that provides all the information necessary to deliver:

- ▶ An easy-to-use picture library/catalog of vocation-specific trucks that quickly searches and returns the number of trucks or chassis/body combinations available
- ▶ Simple but detailed information on specifications of all chassis and body types
- ▶ Exact costs and shipping times, eliminating the need for additional emails and phone calls
- ▶ A “save” feature that allows anyone to make detailed and specific selections and save them for further referencing and design to share with their dealership
- ▶ Instant notification to any cell phone and/or email for quick follow-up
- ▶ Transparent linking to all dealers’ inventory nationwide, with availability through the dealership’s website

Incorporated into the solution would be a system that improves the process of efficiently processing the truck buyer inquiry at the dealership level, regardless of contact method. As noted, one of the pain points in the process that contributes to the wrong truck being purchased is the fact that the truck professional may not be involved early, or at all.





## BRINGING SOLUTIONS

This situation is why Work Truck Solutions was founded in 2011—to build just such a solution. They are a company of seasoned professionals with knowledge and depth in the work truck industry, as well as an understanding of the automotive industry culture and environment in which the commercial sales channel exists. The company has developed a Cloud-based solution that addresses current problems outlined in this white paper. Its solution is a single platform that quickly provides all key stakeholders in the work truck sales process—the buyer, the dealer, the distributor, the body manufacturer, and the OEM—with accurate information on all upfitted and commercial inventory available, including location and tools to help close the deal.

In addition, Work Truck Solutions aggregates information from the body manufacturers, linking that content to information on the specific chassis VIN. The company's vocational "carousel" lets the truck buyer visually select the type of finished truck they need for their business application. The inventory is searchable by chassis and body type, with a simplified online process for finding, quoting, and floor planning work truck inventory. Once the body type is selected, the truck buyer can easily view a list of the built vehicles currently available through their dealership, plus they can easily request more information on a specific configuration they may need to order. Additional filters speed the search for exactly the right truck or van.

Now, Work Truck Solutions is expanding that database to power a digital catalog and ordering systems to continue to create efficiencies for the industry stakeholders.

## GETTING IT RIGHT

Today, with well over 1,300 commercial dealers in its network, Work Truck Solutions' inventory and data is growing rapidly and delivering value for dealers and truck buyers, and for OEMs, fleet management companies, body manufacturers, and distributors across the country.

Work Truck Solutions' platform shortens the time and delivery of accurate information for the "right" work truck to be located and delivered to the "right" place at the "right" time. The platform delivers this with unique applications specific to each stakeholder in the buying process, which eliminates confusion and simplifies the work truck buying and selling process across the entire supply chain. In fact, Work Truck Solutions also provides "Locator" buttons for body manufacturers, such as Knapheide, Reading, Supreme, and others, so that customers interested in that specific brand, or interested in their product line, can easily find upfitted vehicles on dealers' lots in their market area.

Work Truck Solutions is continuing to develop unique values for everyone in the industry—on Comvoy.com, Work Truck Solutions national marketplace, truck buyers are able to choose from "best practices" configurations for their specific vocational needs, and will soon be able to have it customized and then delivered within weeks, without spending massive amounts of time searching for the right truck.

This document contains proprietary information © 2024 Work Truck Solutions



855-265-9996 | [sales@worktrucksolutions.com](mailto:sales@worktrucksolutions.com) | [www.worktrucksolutions.com](http://www.worktrucksolutions.com)