

# ASK THE EXPERT

## Making “Yard Work” Sweat Free



**ANDREA COSTA**

*Product manager for Vontas' OnSite yard management solution*

Automation and technology have improved virtually every aspect of public transportation. From fare collection to rolling stock diagnostics to passenger and operator safety and everywhere in between, transit management teams have benefited in countless ways by investing in automation tools. But one operational area that continues to rely somewhat heavily on manual activities is yard management. Transit teams have continued to rely on personal observation and record-keeping when it comes to tracking vehicles and managing their yards and garages — until now, that is.

New solutions are rolling out that can automate even the most manual of tasks, like knowing precisely where assets are located in the yard and/or garage at any given time. Managing assets on the property no longer has to depend entirely on personal observation, manual record collection, and burdensome reporting.

Andrea Costa, product manager for Vontas' OnSite yard management solution, offers her insights as to why an investment in their solution can save time, reduce costs, increase safety, and enhance the passenger experience.

### What is Vontas OnSite?

**A:** Vontas OnSite is a unique yard management solution that enables transit agencies to track exactly where their vehicles are located in the yard or garage in real time. The location information automatically flows over to other systems in the agency's ecosystem so that dispatchers, maintenance workers, supervisors, and operators all know where a specific vehicle can be found at any time.

### How does Vontas OnSite save agencies time and money?

**A:** There are two solutions offered that both save transit managers time and money.

Vontas' more robust real-time location system (RTLS) solution eliminates the need to conduct the labor-intensive yard walk three to four times each day. Under this solution, each vehicle is tagged,

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and the OnSite system knows within one meter of accuracy where that vehicle is located, eliminating the need to record the location on paper multiple times each day. Vontas also provides a software-only solution, which does not replace the manual yard walk, but it does automatically send the location information to the departments and information systems that need it, such as vehicle scheduling, dispatch, and maintenance.

### **What technology is required to support the solution?**

**A:** The Vontas team works with customers to identify the infrastructure needed to accomplish their yard management goals. The RTLS solution requires two ultra-wideband (UWB) tags to be installed per vehicle and a set of UWB antennas to be installed throughout the yard. The software-only solution is a responsive web interface that can be used by yard walkers on a tablet connected through a web browser.

### **Why should operators invest in a yard management solution? What is the return on investment?**

**A:** Most importantly, the labor cost savings resulting from an automated yard management solution can be significant. The time it takes for one person — typically a skilled worker — walking the yard 30 to 45 minutes, three or four times each day, is more costly than ever. That does not include the labor time it takes for someone to record those locations and add any notes into the scheduling and maintenance software systems.

There are other costs that can also be reduced. Consider the IT professional trying to test a change on a validator that has been installed on a specific bus. If the bus is not where the last piece of paper said it was, valuable IT time is wasted looking for the asset.

Another area of savings includes maintenance. One transit agency yard supervisor told us about a mechanic who needed to start his day doing a standard PM service on a bus. He received his assignment and went to the row and position where the bus was supposed to be located. But the bus is not there. He then needs to inform his supervisor of the problem and then conduct a time-consuming search of the facility — which could be multiple acres in size. Not only is this a frustrating start to the technician’s day, but it also has a horribly negative impact on his productivity.

### **How steep is the learning curve for new users?**

**A:** With the user interface (UI) being so intuitive and friendly to new staff members, the learning curve is quick and you’ll be an expert in no time. It’s also helped by Vontas providing thorough product training, both before and after implementation. Vontas also provides a highly knowledgeable technical resource to assist with any gaps in knowledge on the transit agency side.

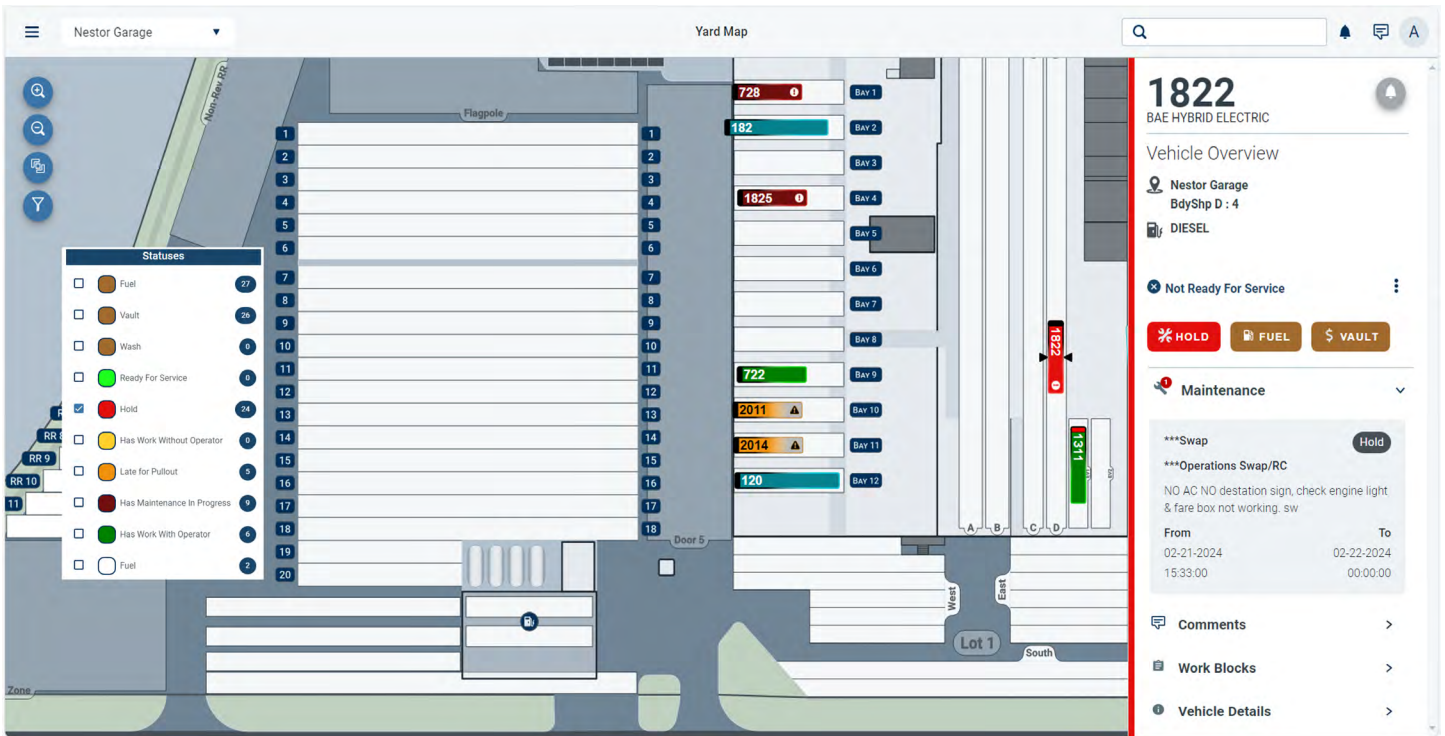
### **Can the solution be tailored to meet the unique needs of an organization?**

**A:** Absolutely! The vehicle attributes of OnSite are highly configurable, as are the automated parking rules within the programming. OnSite is completely configurable to match the exact locations where a transit agency wants vehicles to park when pulling into the facility after completing their block of service. For example, a rule can state that electric vehicles should park in certain lanes, and their state-of-charge can direct them to a specific place for charging if needed. We work with agencies to configure very specific rules for directing the flow of traffic into the yard.

Vontas offers what we call “customization through configuration,” so additional development won’t be needed to alter these items to reflect the real-life situation for our customers. And it goes beyond vehicles. OnSite can also track forklifts, toolboxes, calibrated tools, parts of inventory, visitors, laptops, tablets and whatever else an agency needs to track in their yard.

### **Does Vontas OnSite have a positive impact on operational safety?**

**A:** This is one of the most important benefits of investing in OnSite. When the RTLS solution is implemented, the agency no longer requires the yard walker to survey the entire yard, recording where vehicles are located. This process alone can be dangerous when you consider how frequently vehicles and people move and interact throughout the yard. This potential risk is magnified in a rail yard where you have live third rails and moving train cars added to the mix. Automating your vehicle location process with our RTLS solution makes the yard and garage less dangerous and more secure.



A Customizable Yard Map in use at Nestor Garage at WeGo Public Transit in Nashville, Tennessee.

**How does OnSite improve the passenger experience?**

**A:** There are multiple positive impacts OnSite has on the passenger experience. By making the yard a safer place to work, an agency can attract more operators. Having more operators means the ability to provide more service, which increases public transit alternatives for passengers.

And, since the operators know exactly where their assigned vehicle is located, the daily pull-outs are much more efficient. When the daily pull-outs are on time, then so are the first-stop arrivals, which means passengers won't have to worry about a bus running late. They will get to their destination without any delay, making a much more efficient travel experience. When a rider is on the bus, they're not aware of what goes on behind the

scenes. All they really want to know is, “Where is the bus?” When we work together to minimize those errors and get buses out there on schedule, we make transit a better experience for those who depend on it every day.

When OnSite is combined with our Vontas OnRoute CAD/AVL system, we improve location accuracy when a bus travels into a passenger transit center — where GPS often becomes unreliable. OnSite's tags can send the vehicle's precise location back to the CAD/AVL system, which in turn can predict when the bus will arrive and depart from the passenger transit centers with greater accuracy. The passenger experience improves by displaying even more accurate arrival and departure information on the signage throughout the passenger facility.

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