

The latest piece of kit keeping the railways on track

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Rail track solutions expert Harsco is transforming the way it monitors the utilisation of its rail maintenance machines with the launch of Protran: Compass Remoting.

The system provides an easy way to remote into your machine, from any location, by providing your tech with access to the on-board control system and its advanced diagnostics.

It's the latest in developments by Harsco Rail, a worldwide operating segment of Harsco Corporation. The company is a technological and innovative global supplier of railway track maintenance products and services.

It provides expert engineering, vehicles and equipment, innovative technology, safety technology, dedicated parts and services, contracting services and quality maintenance.

Orlando Parra Ruiz is Harsco's Account Manager for Protran EMEA. He's spoken to Rail Business Daily about his excitement over the launch of Compass Remoting. This is the latest in multiple projects developing new technologies to improve reliability and availability of critical productive assets.

"Our existing Compass product provides Utilization Reports and Asset Tracking," he said.

"With Compass Remoting, we are taking a big step forward with the ability to remote into rail maintenance machines. The ability to troubleshoot remotely will increase uptime and save rail companies money.

"The system sends a data packet to the cellular network at recurring intervals. Each packet contains location, speed, work mode, fuel consumption and other parameters.

"The data collected is displayed in a web browser enabling real time visibility of the assets. Now, using 4G network, Compass Remoting creates a solution for remoting into the machine. If a machine is stalled because of technical issues, an experienced technician can log into the machine remotely to diagnose the problem."

Here he explains more details on the system.

Building on Compass

"Compass Remoting builds on the features offered in the existing Compass product, which is a utilisation and asset tracking system, based on a web-enabled backend system that receives data every 15 minutes from wireless modems located on the machines.

"Compass Remoting adds several important features to the current Compass solution from Protran. Most importantly it is based on bidirectional data. It is possible to send data to the machine, which makes remote troubleshooting possible.

"Compass Remoting creates a solution for remoting into your system. If a machine is stalled because of technical issues, the on-site personnel don't always know how to fix the problem.

"They know how to operate the machine just fine, but often they are not service technicians. With Compass Remoting, an experienced technician can log into the machine remotely – and see the exact same Jupiter screen on the PC, as if he or she were on the machine.

"Compass Remoting stays connected through wireless technology. The machine has to be equipped with the new Compass Remoting wireless gateway device, which offers a high-speed bidirectional data link, as soon as the machine is in coverage of cellular network."

Keeping safe and up to date

“Remoting opens a new type of access to the machine. Throughout the project, security has been one of the design pillars. Remote access is always secure. Communications are protected to prevent unauthorised access to machine data, reports, or core operating software. Users can be added and deleted as necessary, and the level of access to critical functions can be matched to the role of the user.

“We will continue developing Compass, with features to address additional needs. One of the new features we will launch soon is Compass Media Application, which will allow a central hub to distribute documents to the machines, for local storage on the wireless gateway device.

“Software updates can be done remotely, either through the remote troubleshooting sessions or automatically using the Media Server function. Either way, it’s more convenient than having to install the software from a USB stick. As a last resort, installation from USB stick is still supported, if the machine is in a spot with poor coverage for example.”

The benefits

“When my rail maintenance vehicle has a technical problem, I need to get a resolution quickly. The level of experience of using the equipment may vary, so having this system in place is that reassurance. Remoting allows railroads – or even suppliers – to have a core of experts that can jump in to fix problems anywhere, at any time of day, possibly in a matter of minutes. Compare this to having to travel, to be at the machine physically and troubleshoot it on site. What a difference.

“With Compass Remoting, you can locate the source of the technical problem more quickly by leveraging your most highly trained experts – even if they are not on the machine.

“Compass Remoting provides an easy way to remote into your machine, from any location, by providing your tech with access to the on-board control system and its advanced diagnostics.

“With Compass Remoting, it is also possible to upgrade the on-board control system software, if a new version is available.

“World-class productivity was one of the design goals. Your machine uptime should improve as a result of the remote troubleshooting feature and the software updates.

“Current customers are able to use asset tracking/utilisation reports by leveraging our current Compass product offering. This information is available on our web portable, accessible to customers. It is based on telemetry information transmitted from the cellular modems on the machines.”

Having an impact all over the world

“In our improved Compass, customers will be able to connect to the machines and remotely see what is going on, in real time.

“This is a new product. It targets Class 1 railroads in the US and large railroads in Europe. We may have an opportunity in other international markets as well, including some countries in Asia and maybe Australia.

“Compass Remoting can just be used on Jupiter controlled rail maintenance machines from Harsco.”

“Long-term, the solutions we are building now with our new technology, will be vehicles to make sure our products are always ahead. Our Jupiter control system monitors hundreds of components on a machine. Imagine being able to query individual components, to find out if it’s time for replacement, even before it breaks.”

Visit www.harscorailemea.com for more information.