Transportadora De Gas Del Sur (TGS) Goes Paperless With Zebra* XSLATE B10 Fully Rugged Tablets

Natural gas producer uses mobility solution to maximize worker utilization, improve logistics planning

Transportadora de Gas del Sur S.A. started operations on December 28, 1992, upon the privatization of the Argentine energy sector. Today, it is the leading gas transportation company in the country and operates the most extensive pipeline system in Latin America. TGS is also the leader in natural gas liquids production and commercialization both in the local and exports market, an operation managed primarily from its General Cerri Complex, located in Bahía Blanca, province of Buenos Aires. The company’s distribution solutions are integral to the widespread availability of natural gas in the region. Visit [http://www.tgs.com.ar](http://www.tgs.com.ar)

**Challenge**

Reduce Administrative Work, Improve Cross-functional Logistics Planning Using Mobile Technology that Won’t Compromise Worker Safety

Though TGS had relied on paper to execute its natural gas production and distribution business for more than 25 years, it became overwhelming to manage the company’s fast-growing, country-wide operation without the help of digital technology. Manual work order management alone was taking up half of technicians’ day. That does not even account for the back-office resources required to fix incorrect data inputs, generate reports, or manage records for auditing purposes. Plus, line-of-business managers lacked real-time access to the information they required to effectively coordinate and execute a number of complex logistical activities.

“Our maintenance technicians would have to manually print, complete and submit work orders. Loading-dock technicians would have to print spreadsheets detailing each truck’s planned delivery schedule and inventory and then manually input their vehicle and inventory inspection results along with any subsequent logistics actions. It was a very slow and tedious process,” explained Gabriel Catanzaro, gas products and measurements leader at TGS.

* Zebra acquired Xplore Technologies and all Xplore products in 2018.
In 2017, TGS decided it was time to transition to a completely paperless operation. However, the natural gas producer needed a technology solution that would enable it to undertake this massive project without disrupting its day-to-day operations in the process. That’s when company leaders contacted MGITECH, an Authorized Distributor, to understand the benefits of various mobile computing platforms.

After recognizing the unmatched flexibility and handling of a rugged tablet-based solution, TGS started defining its specific feature criteria, including the processing power, wireless communications and security requirements for its enterprise environment and, sometimes, remote job sites. Since workers would be handling the technology around natural gas products – a potential explosion hazard – the company also required an ATEX/C1D2 certified device that would protect its employees while increasing their productivity.

“As a primary producer and supplier of natural gas in Argentina, TGS is obligated to adhere to strict safety and security regulations in the handling of its products. It must also execute a very demanding distribution operation with complete precision. Neither of these are easy to sustain with using paper-based processes,” explained Tom McNeela, senior director of product management, Zebra.

**Solution**

**Zebra XSLATE B10 Fully Rugged Tablet PCs**

The XSLATE B10 fully rugged tablet was the only mobile computing platform that met TGS’ HazLoc safety and logistics simplicity standards after a series of field tests. Today, it is being applied across a number of business functions. For example, the Argentine energy company is currently using the Intel®-powered 10.1” Windows® tablet to expedite the completion of work orders related to the maintenance of its widely distributed production assets. It is also integrating the rugged mobile computers into its warehousing and delivery environments.

“The Zebra rugged tablets enabled us to eliminate the exorbitant amount of time waste associated with our previous paper-based logistics processes.”

**Gabriel Catanzaro**

Gas Products and Measurements Leader, TGS

“TGS had a variety of business challenges and mobility goals it was trying to address with a single mobility platform,” explained Catanzaro. “After extensive performance, connectivity and reliability evaluations, the XSLATE B10 proved to be the most capable and scalable solution. It can easily be applied across a number of maintenance, production and delivery workflows, and it provides a user experience that mimics the manual processes with which workers had long been accustomed. This allowed TGS to easily transition workers to the paperless environment.”
The HazLoc-certified XSLATE B10 is equipped with a top handle, wireless keyboard, and multiple touch inputs, all of which enable TGS maintenance technicians to simply connect to service orders via SAP, retrieve equipment manuals, and complete required documentation in their entirety on the spot, despite the close proximity to the potentially explosive pipelines.

The tablet also enables logistics technicians to more quickly conduct the required series of physical security checks and back-office validations when a delivery truck arrives at the natural gas production facilities. They can immediately retrieve the digital work order for each truck, which details the gas tank pick-up and loading instructions, as well as the final inventory and safety checklist that must be completed before releasing the truck for delivery.

With a direct connection to TGS’ data management systems, technicians have also gained the ability to collect GPS and GIS data on all assets, thoroughly document shipping and receiving actions, and then verify the accuracy of data inputs before signing off on the work order and printing a copy for the truck drivers.

Logistics managers then use the XSLATE B10 to access and analyze up-to-date production schedules, customer orders, inventory levels and delivery truck availability on the bright, 10” outdoor-viewable screen, whether they are working on a remote gas pipeline, from the delivery entrance station, inside the storage facility, or at their desk. As a result, they make better-informed transportation scheduling and routing decisions based on actual supply and demand of both gas tanks and delivery trucks.

“As TGS realized immediately during field testing and early implementations, the Zebra XSLATE B10 enables the organization to not only improve its logistics efficiency but do so safely despite the hazards of its business,” McNeela continued.

Results

TGS Reduces Time Spent on Administrative Tasks, Increases Availability of Gas Transporters by 50%

TGS’ workers welcomed the new mobility tools both at the production facilities and in the field. In addition, IT was pleased with the quick on-boarding process of the tablet-based solution across multiple lines of business. Executives were even more ecstatic about the fast return on investment.

“As the Zebra rugged tablets enabled us to eliminate the exorbitant amount of time waste associated with our previous paper-based logistics processes,” Catanzaro continued.
The Zebra XSLATE B10 rugged tablets have already enabled TGS’ maintenance technicians to become more resourceful in the field. For example, the administrative work that was previously consuming 50 percent of technicians’ time, and requiring significant back-office resources, can now be completed in a matter of minutes, in real time, on the tablets. The direct data inputs into SAP have eliminated errors that previously occurred during the transfer of information from paper to PC-based records systems.

Even more, Zebra’s mobility solution is starting to eliminate the physical logjams that previously occurred at TGS’ production facilities. TGS has already realized a 50 percent increase in the availability of its gas transporters due to the streamlined management of inbound and outbound delivery truck inspections during early deployments of the rugged mobility solution. This has led to a more precisely-coordinated traffic flow in and out of its production facilities. Trucks are now timed to arrive only once their assigned gas tanks are ready for pick up.

In turn, gas tanks no longer sit around waiting to be delivered, and TGS no longer has to worry about multiple trucks arriving at once and sitting empty in long lines for extensive periods of time. These efficiencies will only be amplified once the rugged mobility solution is fully deployed across all production, shipping and receiving workflows.

What’s Next

TGS will continue transition its remaining paper-based business processes to the paperless solution. Nearly every workflow supporting the maintenance, production, processing, storage and transportation of its natural gas products will be solely managed on the Zebra XSLATE B10 tablet-based mobility platform.

For more information on Zebra Tablets, visit www.zebra.com/tablets