

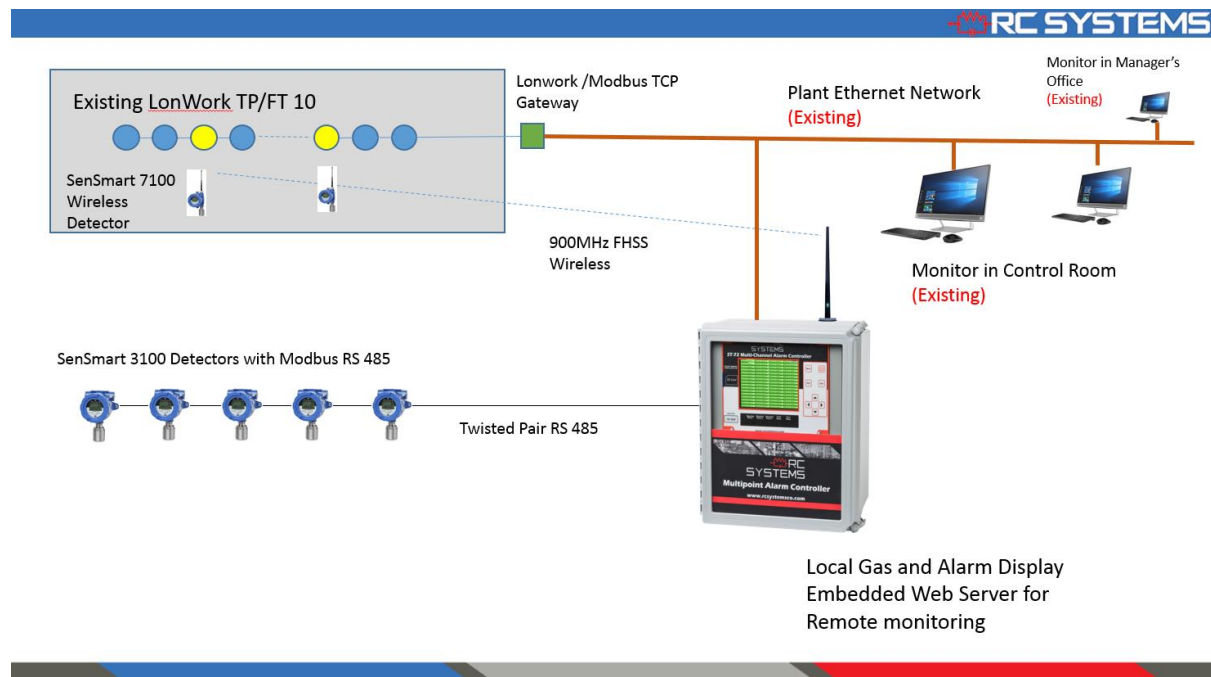
## The Art of Gas Detection

### RC Systems provides quick solution for heavy industrial plant

After years of operation, the reliability of an installed gas detection system can become compromised. Factors such as lack of system maintenance, insufficient or improper staff training and other environmental factors can all contribute to a fully or partially insufficiently functioning system.

A steel mill has a Lonwork gas detection system that is more than 10 years old. The system is so outdated that even the vendor couldn't provide the adequate support to keep the system in reliable working condition. The steel mill needs a new system with the latest gas detection equipment in order to cover more areas proficiently. It also needs to keep the existing system running until the end of its lifecycle. In this case of a partially functioning system, the plant safety manager faces many challenges. With limited project funding and strict time constraints, he needs an answer on how to properly integrate the existing gas detectors with new more advanced gas detectors. RC Systems was ready to provide an answer.

In August 2017, RC Systems sent a project team to the steel mill site to perform a technical evaluation. Engineers found that the old Lonwork system no longer reported any data to the SCADA in the control room and many of the existing gas detectors were not functioning properly. When plant management was informed about the situation, the task to fix the problem became extremely urgent. In order to put a reliable gas detection system online quickly and economically, RC Systems proposed a hybrid solution to integrate the existing system with RC Systems gas detectors and alarm controllers.



RC Systems first provided a free service to re-commission the old Lonwork detectors to make sure they were functioning properly, and then added a gateway to connect the Lonwork to the plants' existing Ethernet network.

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RC Systems then replaced the nonfunctional gas detectors immediately, resulting in zero downtime and zero installation cost, by using our 900Mhz wireless gas detectors and the RC Systems magnetic



mounting plate for wireless – a true plug and play concept. This method did not affect the existing network and the area previously monitored by the old sensor was covered immediately by RC Systems new wireless gas detectors.

RC Systems quickly installed our SenSmart 3100 detectors on a daisy-chain RS485 network, and provided a specially designed junction box for the RS485 network that made the connection of the system very easy, fast, and trouble-free.

With RC Systems’ powerful Viewsmart 6400 controller installed and accepting Modbus from the RS 485 network, Modbus TCP on Ethernet, and wirelessly from the detectors simultaneously, all of the data was able to be collected, processed, stored and displayed immediately. The Viewsmart 6400 embedded web-server allowed the operators and managers to have access to the gas monitoring system from anywhere with an Ethernet/internet connection. This made the existing ill-functioning SCADA systems no longer needed, since the majority of the functions were replaced by our 6400’s web-server at no cost.



RC Systems provided this solution in less than two weeks. The system was upgraded online, without any down time, and the startup of the system included the installation of the newly added devices in less than 5 working days. The simple calibration procedure of RC Systems gas detectors drastically reduced the site service time.



RC Systems not only provided a solution to our customer and installed a reliable working system in a short amount of time, but we also saved our customer over \$100K. RC Systems won the trust of this new customer by providing a solution with a customer- oriented working attitude and by providing quality products quickly and economically. Below is an estimated cost saving summary of the project.

	Original		RC Systems Solution		Savings
	Equipment	Installation	Equipment	Installation	
To replace 36 Gas Detctors	\$ 54,000.00	\$ 18,000.00	\$ 3,000.00	\$ -	\$ 69,000.00
SCADA System	\$ 30,000.00	\$ 3,200.00	\$ -	\$ -	\$ 33,200.00
				Total Savings	<b>\$ 102,200.00</b>

**At RC Systems, we are a true provider of smarter gas detection and simplified solutions!**