

# CASE STUDY COMSTAR



## ABOUT COMSTAR

Based in India with manufacturing facilities and offices worldwide, Comstar is one of the leading multinational automotive ancillary companies engaged in the design and manufacture of starting and charging systems for global passenger car and light commercial applications. Comstar partners with global OEMs like Ford, Volvo, Geely, Renault-Nissan, Jaguar Land Rover, Aston Martin, Tata, Ashok Leyland, etc. Headquartered in Chennai, India, Comstar caters to various geographical regions and has customers across Europe, North America, South America and Asia.



## CUSTOMER

Comstar Automotive Technologies  
Private Limited

COMSTARAUTO.COM/

## SYSTEM INTEGRATOR:

SAS Automation

WWW.SASAUTOMATION.IN

## LOCATION:

India

## CHALLENGES

- ▲ Assembly line alarm monitoring was manual.
- ▲ Manual process was taking disproportionate amount of time.
- ▲ Transfer of information was not possible.

## RESULTS

- ▲ Red Lion provided a cost-effective solution.
- ▲ Overall amount of product defects was reduced by implementing an automated solution.
- ▲ Automated solution now allows for addressing of product defects at time of assembly, saving time and costs.

## PRODUCTS

### ▲ E3 I/O Module

### ▲ DA30D

### ▲ Graphite HMI

### ▲ Model: E3 I/O Module

**Description:** Red Lion's rugged E3 I/O™ Ethernet-enabled I/O module platform provides powerful networking and reliable remote monitoring and control capabilities for harsh industrial environments.

### ▲ Model: DA30D

**Description:** High-performance protocol converter and data-acquisition system with data logger, web server and virtual HMI.

### ▲ Model: Graphite HMI

**Description:** Red Lion's Graphite® platform, built for extreme environments, is comprised of the industry's first rugged HMIs and controllers to combine I/O modules with protocol conversion, data logging, web-based monitoring and IEC 61131 control capabilities.

## DEFINITION OF PROBLEM

In modern manufacturing, automation is key. Those charged with overseeing processes need to spend more time acting on actionable insights and less on manually monitoring those processes, as traditional, manual solutions drive up costs, waste time and often prove ineffective.

Comstar's process for the monitoring of its assembly line system was one such manual process, and the manual nature of the company's solution was preventing accurate and efficient diagnosis of product defects where it matters most – on the assembly line.

In addition, the error alarms on the company's assembly line system weren't being acknowledged in a timely manner. Because the process was manual, the monitoring of alarms and events was confined to the local level. This local, manual nature made the transfer of critical information on a larger scale impossible, creating a significant pain point and bottleneck.

Comstar needed to find a "poka-yoke," or mistake proofing, solution that helps operators avoid mistakes in day-to-day operation.

The solution needed to cut down on the time it took to recognize and attend to system faults and on the processes involved in addressing those faults. Finally, the solution needed to be implemented without impacting or making significant changes to the existing system.

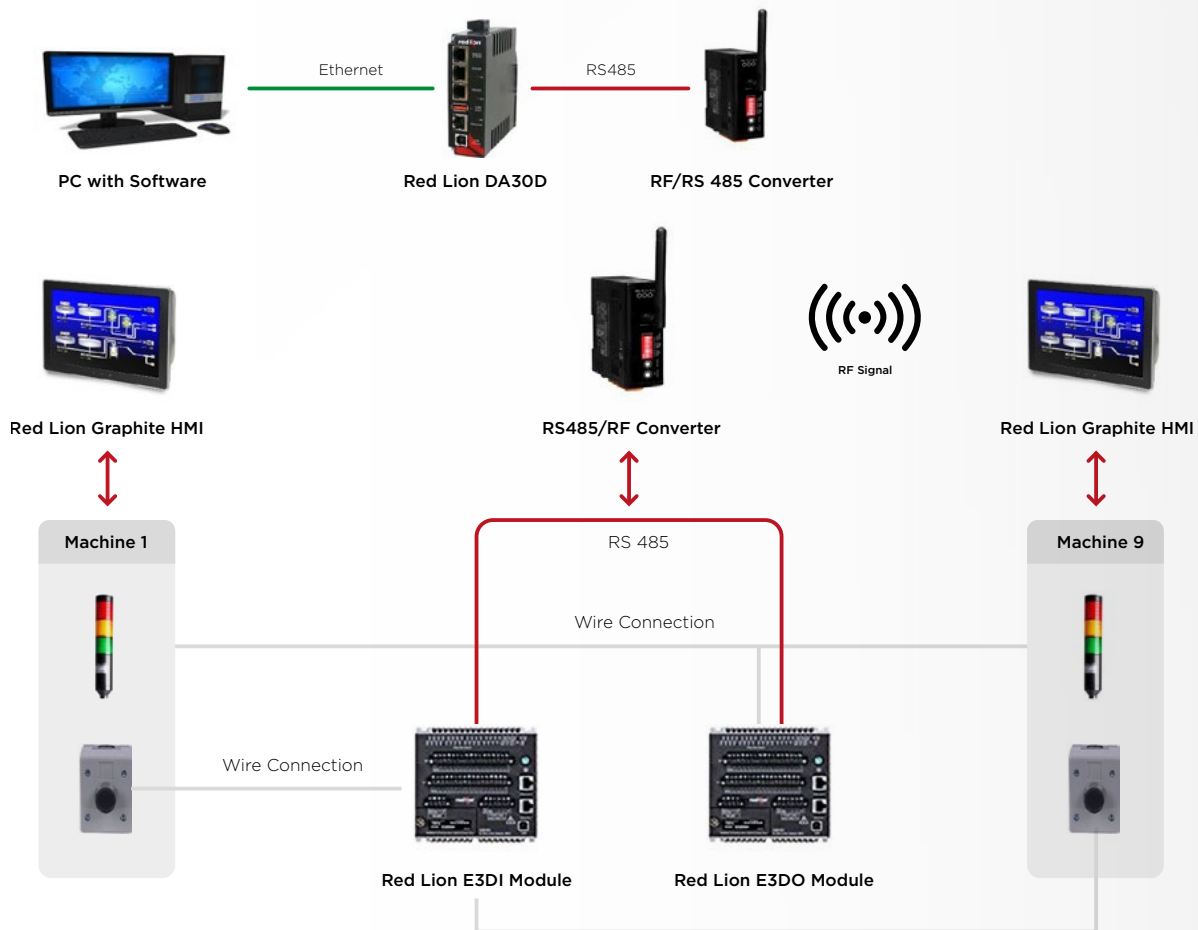
## THE RED LION SOLUTION

The solution needed to cut down on the time it took to recognize and attend to system faults and on the processes involved in addressing those faults. Finally, the solution needed to be implemented without impacting or making significant changes to the existing system.

The team at Red Lion leveraged the E3 I/O Module, the DA30D and Graphite HMI solutions to provide a seamless and fast implementation that didn't impact the existing system.

In addition, a radio transmitter and receiver and SCADA were used in the solution. SAS Automation Chennai was used as the system integrator, connecting the radio frequency module, implementing wiring at the site, configuring the DA30D and E3 I/O Module and providing SCADA modifications.

By utilizing the E3 I/O Module to capture events and alarms through connected buttons and sensors, leveraging the DA30D to capture information from the I/O Module, log its status, and pass that status through a radio modem to the control room SCADA, and using the Graphite HMI for local visualization and to provide an avenue for adding future I/Os, Red Lion was able to provide Comstar with the automated solution it needed.



# RESULTS

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With this solution in place, Comstar has now been provided remote and efficient monitoring of the assembly line system, overcoming the shortfalls of the previous manual solution.

The protocol conversion of the DA30D, powerful data logging capabilities and the E3 I/O Module's connectivity were particularly impactful for Comstar and will provide lasting benefits for the company's monitoring efforts moving forward.

Comstar lauded the Red Lion solution as innovative with easy-to-configure software, noting that the solution is also set up to be future-dependent and ready to adapt to innovations to come.

Though Comstar had been approached in the past by other vendors interested in providing a more automated solution for the company's assembly line system, Red Lion was the first to offer the cost-effectiveness Comstar was looking for.

With the implementation of Red Lion's solution, not only were product defects reduced on the whole, but product defects that did occur were solved at the time of product assembly, saving time and money and boosting employee satisfaction.

The solution has also had a direct impact on Comstar's success, as the benefits of the solution have been passed down to the company's own customers, such as Royal Enfield, Volvo, KIA, TVS and TATA.



[www.redlion.net](http://www.redlion.net)

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As global experts in communication, monitoring and control for industrial automation and networking, Red Lion has been delivering innovative solutions for over forty years. Our automation, Ethernet and cellular M2M technology enable companies worldwide to gain real-time data visibility that drives productivity. Product brands include Red Lion, N-Tron and Sixnet. With headquarters in York, Pennsylvania, the company has offices across the Americas, Asia-Pacific, and Europe. Red Lion is part of Spectris plc, the productivity-enhancing instrumentation and controls company. For more information, please visit [www.redlion.net](http://www.redlion.net).

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