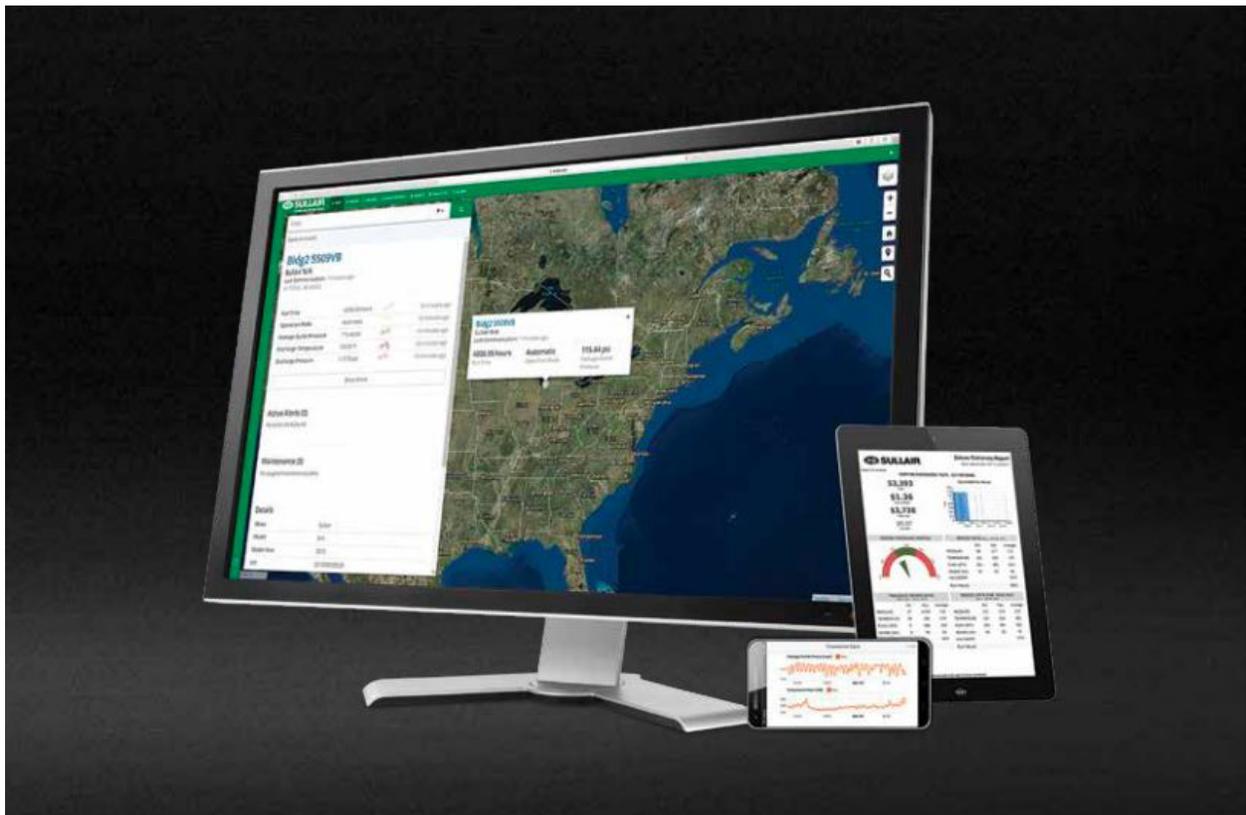




AIR COMPRESSOR IOT 101

By Manhar Grewal



In today's world, there are many buzzwords used in every industry. Terms often thrown around in C-Suites are digital revolution, Industry 4.0 and IoT when discussing the evolution of the industrial equipment and applications we rely on.

In short, IoT stands for Internet of Things and I-IoT stands for Industrial Internet of Things. The true goal of I-IoT is to equip any piece of industrial machinery with sensors and a modem-like device. The sensors and modem-like device are used to monitor key metrics of that machinery and send the data to multiple, remote locations. The data could be sent to an app on your smartphone or a backend server to send text messages on key alerts, for example.

Sullair launched its IoT solution in April 2017 on the same day Hitachi announced its acquisition of Sullair. When developing its IoT solution, Sullair took a customer and distributor view of the solution and discovered most customers do not want to have to worry about or review their air compressor daily. Instead, most people want to know if an issue has happened, what it is, and how to get the compressor up and running as soon as possible. Today, many companies, not just Sullair, provide remote monitoring to give this sense of security, but capabilities are expanding far beyond that. We are evolving to have advanced applications to provide predictive maintenance to avoid a major component failure in advance.



To enable IoT in the air compressor industry, a modem is added to an air compressor. They come in many different shapes and sizes, but for mobile compressors, the standard of communication is on J1939, which is CanBus. The protocol takes in modern engine as well as compressor data. The picture below is more commonly used on a stationary compressor and typically uses a form of ModBus to send the data. When we reference data, think about run hours, GPS location, discharge pressure and alerts and warnings. The true intent of all this is to mimic everything you would see while standing directly in front of the compressor and looking at the controller; but now you can view this same information remotely on your smartphone while at your home, for example.

When reviewing IoT solutions, there are many questions you should ask as a customer. Some questions could include:

- What can the solution monitor?
- Does it monitor what your company is concerned about?
- Does it monitor downtime on advanced warnings/ maintenance data?
- How long can the data be viewed on the website or phone app?
- Is there a hardware and service cost?

For any questions or support on Sullair's IoT solution, *find an authorized Sullair distributor*. You can also view a demo video on the *Sullair YouTube channel*.