## COMPLETE PICTURE

WINDROCK ENTERPRISE PROVIDES REMOTE VISIBILITY OF ENTIRE FLEET OF ASSETS

BY BRENT HAIGHT



Dover Energy Automation (DEA), an operating company within Dover Corp., has launched Windrock Enterprise, an Industrial Internet of Things (IIoT) platform that enables on-demand, real-time remote visibility of an entire fleet of assets from any computer or mobile device.

Headquartered in The Woodlands, Texas, USA, DEA is a provider of products, intelligent productivity tools, and related automation software for the energy sector. DEA includes various operating companies such as Windrock, PCS Ferguson, Norriseal Wellmark, and more, providing compre-

hensive product and automation solutions to global customers. This is the first offering from DEA that combines expertise from its various operating companies into a single, cloud-based solution.

According to Rohit Robinson, vice president product management & strategic marketing at DEA, this is a dramatic improvement compared to the previously limited views of data that would be collected from singular pieces of equipment whose connection methods isolated them from the remainder of the fleet.

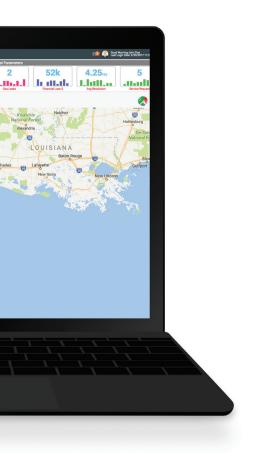


tion to a central cloud depository, Windrock Enterprise reduces the amount of time these operators need to spend in the field. Additionally, by aggregating multiple assets together, Windrock Enterprise can provide a more holistic KPI [key performance indicator] view for decision making. So now you're not just deciding on how one particular asset is performing, but if you have 1500 units across a pipeline, you might be able to

look at it quickly and say, 'which out of the 1500 need attention right now?"

"Windrock provides analyzers for the industry," said Ali Raza, president of DEA. "Its focus has always been around reciprocating compressors, rotating equipment, and rotation monitoring, which is part of the solution. They have developed some wonderful expertise over the years and have grown from

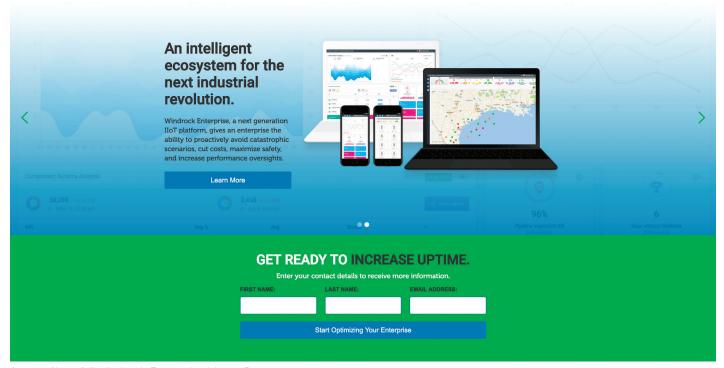
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"The benefits are immense. Typically, human expertise is involved in going site to site and visiting these assets and capturing their information, coming back, doing analyses, and then doing the report," said Robinson. "As you can imagine, the moment a human being steps out into the field we are exposing them to safety risks. By automating this whole process and moving this informa-







Screen Shot Of Windrock Enterprise Home Page

taking measurements once or twice per month from a portable device to constant monitoring of critical compressors. We introduced Windrock's Platinum System for critical assets where we can actually see 24/7 data capture and provide monitoring services along with it as well. When we did that, we realized that the communities keeping these assets up

and running – the ones who know the ins and outs of those machines – are only part of the equation. This analysis that is being done also has a lot of meaning to people sitting a level above that, because if I am looking at the entire network of compressor stations around the pipeline, I would like to know how all my assets are doing. What are the critical items



on that asset? And, if something goes wrong, how will those disruptions hurt the bottom line of the business? How is it going to expose me to safety, security, and liability issues?"

"Our current product line monitors reciprocating engines and rotating equipment across the entire value stream, but on a specific asset basis," said Robinson. "The hardware actually sits on one particular engine, monitors it, and provides KPI just for that one recip. That product line is doing extremely well, but we saw the need for companies to be able to pull all asset data from an entire fleet to benchmark and quantify these assets. Windrock Enterprise addresses that need, capturing multiple individual asset data and bringing it all together in one intuitive dashboard, providing real-time remote visibility of an entire fleet of assets at the same time."

Windrock Enterprise utilizes Microsoft Azure IoT Technologies, a collection of integrated cloud services that developers and IT professionals use to build, deploy, and manage applications through a global network of data centers. The solution leverages the Azure Infrastructure-as-a-Service (an instant computing infrastructure managed over the internet) and Platform-as-a-Service (a complete development and deployment environment in the cloud) to provide IoT solutions.

"The Windrock Platinum System is hardware and software that sits on the asset itself," said Robinson. "That asset is then communicating with the central cloud, which is hosted by Dover Energy Automation. Think of it as capturing data from single sites and moving it to a central depository, which is then accessible to various stakeholders. Should the customer choose the additional services that Windrock offers, then the Windrock team can also look at the data and monitor it."

"The gas compression industry is not providing technical analysts and top-level executives with the deep insights required to optimize their enterprise as fast as it needs to," added Robinson. "The more we can automate this, the better it is for our customers to manage their current expertise."

"I think the biggest challenge we see in the industry today is the elimination/reduction of skill sets," said Raza. "As an industry, we are losing some of the deep knowledge that we used to have. The resource pool is getting narrower as we go forward. For example, one of our customers runs 1600 compressor stations with only 40 analysts. When you talk about these analysts driving to those stations and actually monitoring these pieces of equipment,

the time it takes to physically look at each machine may not be fast enough to keep track of the health of the equipment. We believe the IoT and analytics will provide a lot more value to our customers. From any computer or mobile device in the world, enterprise stakeholders can securely connect to a modern and intuitive dashboard where they can analyze trends and gain immediate insights about the health of their assets."

