Leap into IIoT with Phase IV
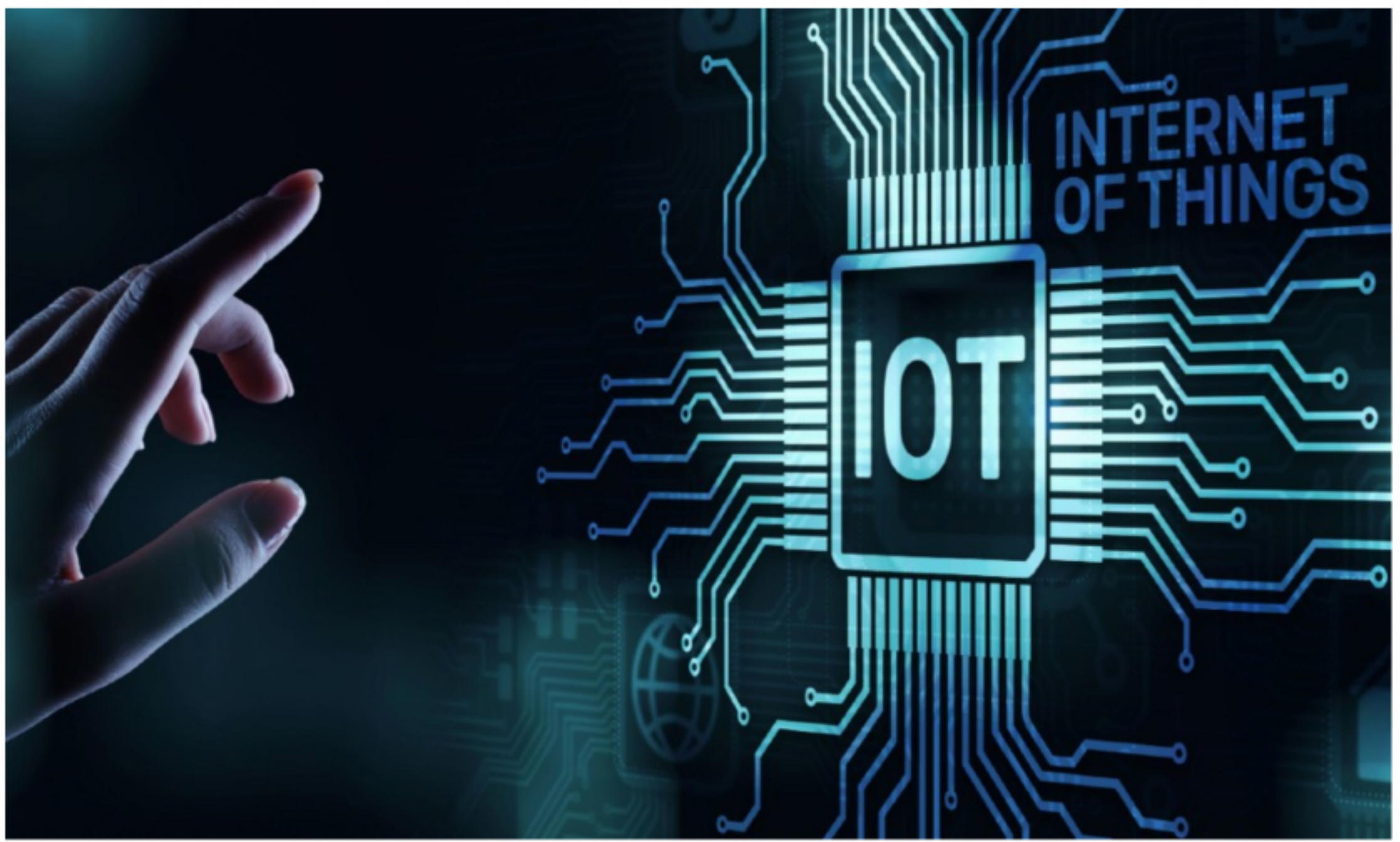
By Maurice Nagle / February 03, 2022

For Phase IV Engineering this February marks its 30th anniversary. Known for complex and challenging wireless sensor designs for other companies, Phase IV's engineers frequently designed comprehensive IoT solutions for Fortune 100 firms. For instance, every time you see a Boeing 777 or 787 overhead, Phase IV played a part in making that possible.

Scott Dalgleish Phase IV CEO explained in a recent interview, "I've been here for about a dozen years, but prior to Phase IV I was an industrial plant manager for Folgers for Proctor & Gamble. I saw a tremendous opportunity to take our engineering expertise, and apply our understanding to wireless industrial application."

The shift in thinking started a handful of years ago, and with building momentum came increased attention. In August of 2020, Phase IV closed a major funding round with best in class measurement technology provider WIKA, making WIKA majority shareholder, and fueling accelerated product offerings as well as marketing.

Recounting his time on the packaging line at P&G, Dalgleish highlighted the cost and limitations of running wires in the factory, continuing to note "in this day and age, in the IoT world, where we're trying to get more data from 'things,' we can do a lot with that data. But, if you run wires it's expensive and difficult."

"If you have good data, you can figure out what's going wrong," it is that simple. To put it in perspective, Dalgleish would make technicians calculate the cost of a minute of down time on the packaging line – which amounted to nearly $3,000. Now do the math on what a few days of downtime from a machine, or belt can cost.

Fast forward to Phase IV, and the value of an easily deployable sensor capable transferring data to a gateway and delivering consolidated metrics via email, phone and text alerts is immeasurable. Our sensors come preconfigured, out-of-the-box and running in five minutes," noted Dalgleish.

Place a CAN Bus sensor on the piece of equipment and get a visual representation of the data to track and forecast component wear and tear via Leap system. Dalgleish stated using Phase IV historical data as a guide, "Theory says when a piece of equipment starts to fail you'll see the readings rise...they'll typically double in value at the point of failure. Set a baseline and real quickly and easily you can set limits to receive notifications."

A transceiver can run to up four different nodes that can support up to two sensors, load cells or an accelerometer, for instance. The system pieces together rapidly, efficiently and cost effectively. Dalgleish explained, "All of our sales are very consultative. These guys are really smart and great technically, but wireless sensing is kind of new to them. We work with the client to find the right fit. With Leap one size doesn't fit all."

The modular system design with the CAN bus enables up to eight different modules, software and firmware developed with a similar mindset. Once deployed, Phase IV can provide hosing in a gateway, PC, Cloud or hand it over to the client.

"We have really simplified the system and made it super easy to use. These are highly technical guys but don't have the time. If I can ship you a box, you open chrome, have no software to install and no IT department to talk to," deployment is minutes.

In its fifth generation, Dalgleish explained the Leap system decided to choose security "that was unquestionable and immediately accepted, Internet Protocol. Every IT is comfortable with IPv6." As he more succinctly put it, "It's the 'Internet' of Things, so use it!"

The industrial IoT is at a tipping point, with true Industry 4.0 knocking on the door. Dalgleish and the Phase IV offer a system that "very practically meets the needs of the industrial sector to quickly and efficiently add sensing technology."

When you just had a motor fail and your boss tells you that can't happen again; you know who to call. The IIoT is here to help.

Learn more about IIoT, automation, AI and IoT ecosystem at IoT Evolution Expo, part of #TECHSUPERSHOW, taking place June 21-24 in Fort Lauderdale, Florida. See you there!

Edited by Luke Bellos