How three Indiana companies are using the internet of things

Tracking engines

Columbus-based **Cummins Inc.** uses its Connected Diagnostics wireless technology to identify problems with its engines while they are in use by customers, then provides fleet owners with a diagnosis through the company's new Guidanz app. "The unique information sent by Connected Diagnostics is much more valuable than a simple lamp on the dash and more complete than raw data pulled from the electronic engine system," Cummins said. It "identifies and prioritizes the fault codes, determines the probable cause of the fault and reports it to you." Connected Diagnostics also finds the nearest repair location and creates a work order for customers, who access the information through an app. The program is active in more than 35,000 trucks and other on-highway vehicles and is being added to off-highway equipment as well.

Detecting leaks

Carmel-based **Delta Faucet Co.** plans to debut a wirelessly connected detector this fall that will alert homeowners when a sink, water heater or other source is leaking. The company said the detector—the company's first internet of things device—can be placed "virtually anywhere" and uses a homeowner's Wi-Fi network to send an app alert when water begins dripping or pooling. An audible alarm alerts anyone in the vicinity. The detector's price is projected to be $79.

Storing energy

Carmel-based **Mesh Systems**—which works with companies to design and implement smart products—partnered with North Dakota-based Steffes Corp. to develop a system meant to take volatility out of the electric grid that could be caused by renewable energies like solar or wind. Using cloud technologies, the system allows Steffes to connect and control thousands of the water heaters it manufacturers to create virtual energy storage (each one is capable of storing 13 kilowatt-hours of electricity). That means utilities can store energy as it's made so it can be used when it's needed. In Oahu, Hawaii, the system allows utilities to stabilize the electric grid without powering up and down larger generation plants.
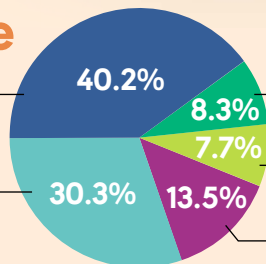
— Lesley Weidenbener

Where IoT is in use

- **Business and manufacturing** — real-time analytics of supply chains, equipment and robotic machinery — 40.2%
- **Health care** — portable health monitoring, electronic recordkeeping — 30.3%
- **Retail** — tracking inventory and smartphone purchases, anonymous analytics of consumer choices — 8.3%
- **Security** — biometric and facial recognition locks, remote sensors — 7.7%
- **Other** — 13.5%

Source: Intel